[0001] This application claims priority to U.S. Provisional Application No. 60/268,337, filed February 12, 2001; U.S. Provisional Application No. 60/279,256, filed March 27, 2001; U.S. Provisional Application No. 60/311,609, filed August 9, 2001; U.S. Provisional Application No. 60/323,649, filed September 19, 2001; U.S. Provisional Application No. 60/332,696, filed November 13, 2001; U.S. Provisional Application No. 60/333,724, filed November 28, 2001; and U.S. Provisional Application No. 60/340,454, filed December 7, 2001; all of which are hereby incorporated by reference in their entireties. This application is related to, and incorporates by reference in their entireties, co-owned and co-pending U.S. Patent Application Serial Numbers: 10/074,149; 10/074,722; 10/074,633; 10/074,564; and 10/074,534, all of which were filed on February 11, 2002.

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Please delete paragraph [0002].

IN THE CLAIMS:

Please amend Claims 35, 41, 57, 59 and 66 as follows:

35. (Amended) A compound Si-containing film in an integrated circuit, the compound Si-containing film having a thickness non-uniformity of about 5% or less and a compositional non-uniformity across the film of about:

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20% or less for elements representing 1 atomic % or greater of the film; and

75% or less for elements representing 0.001 atomic % to 1 atomic % of the film.

41. (Amended) A process for depositing a SiGe material on a surface, comprising:

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providing a chemical vapor deposition chamber having disposed therein a substrate;

introducing a gas comprised of a higher-order silane and a higher-order germane to the chamber; and

depositing a SiGe film onto the substrate.

57. (Amended) A process for depositing a Si-containing material on a surface, comprising:

providing a chemical vapor deposition chamber having disposed therein a substrate, the chemical vapor deposition chamber being equipped with a temperature controller configured to allow programming with multiple temperature control variables for a single recipe;

entering a temperature control variable T_1 into the temperature controller;

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introducing a first gas comprised of X_1% of a first Si-containing chemical precursor to the chamber; wherein the X_1 is in the range of about 1×10^{-4} to about 100;

depositing a first Si-containing layer onto the substrate;

entering a temperature control variable T_2 into the temperature controller;

introducing a second gas comprised of X_2% of a second Si-containing chemical precursor to the chamber, wherein the X_2 is in the range of about 1×10^{-4} to about 100 and wherein the second silicon source is the same as, or different from, the first silicon source;

depositing a second Si-containing layer onto the first Si-containing layer, thereby forming a multi-layer Si-containing film having a thickness non-uniformity of about 5% or less and a compositional non-uniformity of about 20% or less for elements representing 1 atomic % or greater of the film; and

75% or less for elements representing 0.001 atomic % to 1 atomic % of the film.

59. (Amended) The process as claimed in Claim 57, which further comprises:

entering a temperature control variable T_3 into the temperature controller;

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introducing a third gas comprised of X_3% of a third Si-containing chemical precursor to the chamber; and

depositing a third Si-containing layer onto the second Si-containing layer.

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66. (Amended) An apparatus for depositing a Si-containing material on a surface, comprising:

a chemical vapor deposition chamber;

a vessel containing trisilane;

a feed line operatively connecting the vessel to the chemical vapor deposition chamber to allow passage of the trisilane from the vessel to the chemical vapor deposition chamber; and

a temperature controller operatively disposed about the vessel and maintained at a temperature between about 10°C and 70°C, to thereby control the vaporization rate of the trisilane.